

**REMARKS**

Reconsideration of the present application is respectfully requested in view of the following remarks. Claims 1-20 are currently pending in this application, of which claims 1, 6, 7, 11, 16, and 17 are independent. In the Office Action dated June 9, 2005, the Examiner rejected claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,257,206 ("*Hanson*"). Applicant hereby addresses the Examiner's rejections in turn.

Claims 1-5 and 11-15

In rejecting claim 1, the Examiner contended that *Hanson* shows each and every feature of claim 1. Applicant respectfully traverses the Examiner's rejection and submits that *Hanson* at least fails to show or suggest (a) "providing one or more types of weight coefficients for each alarm generated by an apparatus to be managed;" (b) "multiplying the weight coefficient to obtain the total weight coefficient for each alarm;" (c) "multiplying, by the total weight coefficient, a '1,' which represents a case count for one generation of each alarm, and obtaining a weighted case count for each alarm;" and (d) "adding the weighted case counts for individual alarms to prepare statistics for the weighted number of alarm generation cases," as required by claim 1.

In particular, the Examiner contended that col. 2, lines 5-43 and Fig. 1 (Units 335 and 310) of *Hanson* disclose feature (a), as described above. Contrary to the Examiner's contention, *Hanson*, in the referenced section, mentions collecting "continuous real-time analog measurements" for an air separation process. Col. 2, lines 8-10. The analog data collected may be applied to defined control charts

displaying visually presented limits and alarm thresholds, where the alarm thresholds are not indicators of actual alarms generated by an apparatus, but are rather statistical limits established by analyzing “consecutive data samples to indicate whether or not there is statistical evidence of non-random behavior such as a trend or a shift in the real time measured process variable data.” Col. 2, lines 30-42. Therefore, *Hanson* fails to show or suggest, in either the cited portion or any other portion “providing one or more types of weight coefficients for each alarm generated by an apparatus to be managed,” as required by claim 1.

The Examiner contended that *Hanson*, in col. 11, lines 4-30, shows feature (b), as described above. Contrary to the Examiner’s contention, the cited portion of *Hanson* refers to using time-series forecasting models (ARIMA) to analyze the data for an air separation process variable by “considering the residuals formed from the difference between the model prediction and the observed value.” Col. 11, lines 5-7. *Hanson* fails to show or suggest, either in the cited portion or any other portion “multiplying the weight coefficient types to obtain the total weight coefficient for each alarm,” as required by claim 1.

The Examiner also contended that cols. 10-11, lines 48-30 and col. 12, lines 18-67 of *Hanson* show feature (c), as described above. Applicant submits that *Hanson* fails to show or suggest this feature, which requires “multiplying, by the total weight coefficient, a ‘1,’ which represents a case count for one generation of each alarm, and obtaining a weighted case count for each alarm,” at least because *Hanson* fails to show or suggest an “alarm generated by an apparatus to be managed” and “multiplying the weight coefficient types to obtain the total weight coefficient for each alarm,” as

described above in connection with features (a) and (b). The above portions cited to by the Examiner fail to cure the inefficiencies described above and merely refer to using a time-series model to “predict the value of Y at the next sampling instant.” Col. 12, lines 56 and 57. Thus, *Hanson* fails to show or suggest feature (c) of claim 1.

The Examiner additionally contended that *Hanson* shows feature (d) of claim 1, which requires “adding the weight case counts for individual alarms to prepare statistics for the weighted number of alarm generation cases.” Applicant submits that at least because *Hanson* fails to show or suggest “obtaining a weighted case count for each alarm” as required by feature (c) of claim 1, *Hanson* also fails to show or suggest “adding the weight case counts for individual alarms to prepare statistics for the weighted number of alarm generation cases,” as required by claim 1.

Accordingly, Applicant submits that at least because *Hanson* fails to show or suggest each and every feature of claim 1, claim 1 is patentable over *Hanson* under 35 U.S.C. § 102(b). Claim 11 is directed an alarm management apparatus having features that substantially correspond to those novel features of claim 1. Therefore, Applicant submits that claim 11 is also novel and patentable over *Hanson* under 35 U.S.C. § 102(b) for at least the reasons given above. Claims 2-5 and 12-15 respectively depend from claims 1 and 11, respectively, and are, therefore, also patentable under 35 U.S.C. § 102(b).

#### Claims 6 and 16

In rejecting claim 6, the Examiner contended that *Hanson* shows the features of:

correlating each alarm generated by an apparatus to be managed and apparatus data representing the status of the apparatus by employing a date and time wherein the alarm was generated as a key; preparing a trend graph for predetermined apparatus data included in the apparatus data obtained from the apparatus to be managed; displaying on the trend graph a date and time whereat a predestinated alarm was generated based on the correlation.

Applicant submits that *Hanson* fails to show or suggest the method of claim 6 at least because *Hanson* fails to show or suggest an “alarm generated by an apparatus to be managed,” as discussed above in connection with claim 1. Applicant also submits that col. 5-6, lines 56-34 and Figs. 4-9 of *Hanson*, which were referred to by the Examiner as disclosing features of claim 6, fail to show or suggest these features. More specifically, *Hanson* refers to gathering “real-time process variable data related to continuous operation of the production process,” where the data is “obtained as data samples at pre-determined sampling intervals.” Col. 5, lines 63-68. *Hanson* fails to show, either in the cited portion or any other portion, “correlating each alarm generated by an apparatus to be managed and apparatus data representing the status of the apparatus by employing a date and time wherein the alarm was generated as a key,” as required by claim 6.

Moreover, Applicant submits that Figs. 6 and 7, which were indicated by the Examiner as showing the claim feature of “displaying on the trend graph a date and time whereat a predestinated alarm was generated based on the correlation,” fail to show or suggest this feature. More specifically, neither Fig. 6 nor Fig. 7 shows an axis or any other representation of date or time. Rather, both Figs. 6 and 7 are graphs of sample data groups vs. their corresponding standard deviations. Therefore, Applicant submits that *Hanson* fails to show or suggest “displaying on the trend graph a date and time

whereat a predestinated alarm was generated based on the correlation,” as required by claim 6.

Accordingly, Applicant submits that at least because *Hanson* fails to show or suggest each and every feature of claim 6, claim 6 is patentable over *Hanson* under 35 U.S.C. § 102(b). Claim 16 is directed an alarm management apparatus having features that substantially correspond to those novel features of claim 6. Therefore, Applicant submits that claim 16 is also novel and patentable over *Hanson* under 35 U.S.C. § 102(b) for at least the reasons given above.

Claims 7-10 and 17-20

In rejecting claim 7, the Examiner contended that Figs. 6 and 7 of *Hanson* show the features of:

preparing statistics only for alarms that were generated by an apparatus to be managed when predetermined apparatus data included in the apparatus data that are obtained from the apparatus and that represent the status of the apparatus, have a predestinated value or are within a predetermined range.

As discussed above in connection with claims 1 and 6, *Hanson* fails to show or suggest “alarms that were generated by an apparatus to be managed.” Applicant submits that Figs. 6 and 7 additionally fail to show the above required feature of claim 7 at least because the graphs of Figs. 6 and 7 include data for all data subgroups and at various standard deviations, and, therefore, fail to contemplate “preparing statistics only for alarms that were generated by an apparatus to be managed when predetermined apparatus data included in the apparatus data that are obtained from the apparatus and

that represent the status of the apparatus, have a predestinated value or are within a predetermined range,” as required by claim 7.

Accordingly, at least because *Hanson* fails to show or suggest each and every feature of claim 7, claim 7 is patentable over *Hanson* under 35 U.S.C. § 102(b). Claim 17 is directed to an alarm management apparatus having features that substantially correspond to those novel features of claim 7. Therefore, Applicant submits that claim 17 is also novel and patentable over *Hanson* under 35 U.S.C. § 102(b) for at least the same reasons given above. Claims 8-10 and 18-20 depend from claims 7 and 17, respectively, and are, therefore, additionally novel and patentable over *Hanson* under 35 U.S.C. § 102(b).

#### Conclusion

In view of the foregoing remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding remarks are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability.


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Respectfully submitted,

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By: \_\_\_\_\_

  
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